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## M E M O R A N D U M

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FROM: Mark Brooks/CH2M HILL

DATE: March 11, 1994

SUBJECT: Proposed Geotechnical Field Exploration for Woman Creek Reservoir Final Design, SLPP.

PROJECT: RMW31928

## Introduction

Per your request, this memo describes the geotechnical field exploration to be completed at the Woman Creek Reservoir (WCR) site in late March and early April. It is intended to provide information necessary to secure access permission from Jefferson County (Jeffco), and approvals from the US Fish and Wildlife Service (USFWS) (if necessary) with respect to the bald eagle activity approximately one mile to the east at Standley Lake.

The geotechnical investigation will be performed for the proposed WCR, to be located on existing Jeffco Open-Space land, near the intersection of West 96th Street and Indiana Street. This investigation will be conducted to provide the necessary supplemental information for the final design of the revised WCR configuration, and fulfill the requirements for the State Engineer's review of the WCR design. This investigation will consist of a geotechnical field investigation and laboratory testing program to supplement information developed previously for prior project configurations, plus the completion of a Geotechnical Design Report. Relevant information from the previous Geotechnical Design Report will be incorporated into this new report. Because of the revised configuration and operating scenario of the SLPP, an emphasis on the availability, quality, and utilization of construction fill materials will be addressed by the geotechnical investigation.

## Geotechnical Field Investigation

The proposed field exploration activities will include the drilling of approximately 11 borings and the excavation of approximately 11 test pits. Table 1 summarizes the location and depth of the proposed explorations. The location of the borings in reference to the proposed WCR facilities are shown on Figure 1.

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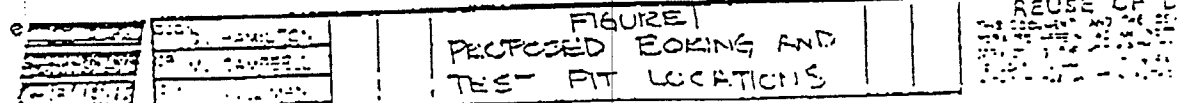
The borings will likely be completed using a CME-75 truck-mounted auger rig. Boring depths are anticipated to range between 20 and 40 feet below existing grade (5 to 30 feet into the underlying sedimentary bedrock). All drill holes will be backfilled with bentonite pellets or grout after completion of the boring. Drilling field work is anticipated to be conducted between the hours of 7:00am and 6:00pm, and last between 4 and 5 days. During drilling work, 1 drill rig, 2 pick-up trucks, and 3 personnel are anticipated to be present at the WCR project site.

The test pits will likely be excavated using a track-mounted excavator (such as a CAT 225). Test pits will likely be excavated to depths ranging between 15 and 20 feet. Test pit excavations will be backfilled with excavated materials prior to the end of the work day. Drilling field work is anticipated to be conducted between the hours of 7:00am and 6:00pm, and last 1 or 2 days. During test pit work, 1 excavator, 2 pick-up trucks, and 2 personnel are anticipated to be working at the WCR project site.

The geotechnical field investigation will include the necessary activities to complete field exploration of the project site. The scheduled activities are expected to include:

- Coordination of exploration work and subcontractor agreements. (March 14-18, 1994).
- Arranging site access through Jefferson County Open-Space. The City of Westminster will likely have to provide a written request for access, before Jeffco Open-Space will issue us a gate key to the site. (March 14-18, 1994).
- Survey location of exploration sites. (March 21-25, 1994).
- Perform utility locates. (March 21-25, 1994)
- Drill approximately 11 borings. (March 28 - April 1, 1994)
- Excavate approximately 11 test pits. (April 4-5, 1994).

This geotechnical investigation program assumes that field exploration can be conducted in late March and early April. The actual dates of field exploration will likely depend on Jeffco Open-Space access permission, USFWS approvals, drill rig/excavator availability, and weather conditions.



## EXPLR.TAB

TABLE 1 SUMMARY OF PROPOSED EXPLORATIONS					
BORING/ TEST PIT	COORDINATES		SURFACE ELEV. (ft)	DESIGN ELEV. (ft)	EXPLORATION DEPTH (ft)
	NORTH	SOUTH			
GH94- 1			5585	5575	20
GH94- 2			5595	5570	30
GH94- 3			5591	5570	30
GH94- 4			5601	5573	35
GH94- 5			5599	5573	35
GH94- 6			5604	5578	30
GH94- 7			5617	5582	40
GH94- 8			5614	5579	40
GH94- 9			5606	5581	35
GH94- 10			5608	5580	35
GH94- 11			5617	5596	40
				TOTAL	370
TP94- 1			5597	5570	15-20
TP94- 2			5598	5570	15-20
TP94- 3			5605	5577	15-20
TP94- 4			5603	5577	15-20
TP94- 5			5606	5577	15-20
TP94- 6			5608	5578	15-20
TP94- 7			5612	5580	15-20
TP94- 8			5611	5580	15-20
TP94- 9			5618	5607	15-20
TP94- 10			5620	5606	15-20
TP94- 11			5620	5605	15-20
Actual exploration locations and depths may be altered to suit field conditions.					